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ABSTRACT

Prepared as part of a joint effort by the Maryland State Board for Community Colleges (SBCC) and the Maryland State Board of Education to promote high-quality occupational programs and services, this report provides information on the state's management information system and program data monitoring system. Following the text of a resolution establishing the Joint Coordinating Committee for Occupational Education Programs, the report provides a project summary which outlines procedures and results for three project objectives: (1) to conduct statewide projects, including the preparation of computer files and reports on credit enrollment, degree recipients, graduate follow-up, leaver follow-up, employer follow-up, discipline cost analysis, continuing education, and program inventory; (2) to run the SBCC Program Data Monitoring System and review each of the 396 programs by June 1983; and (3) to publish an in-depth evaluation of 48 community college programs by March 1983 and a statewide evaluation of media/communications programs. Tables provide a statistical summary of program evaluation activities for 1978 through 1982 and identify programs designated for evaluation in 1983. Appended materials provide instructions on using information to support instructional program evaluation, a program implementation and evaluation flow chart, and guidance for users of the Program Data Monitoring System. (LAL)

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THE IMPROVEMENT OF OCCUPATIONAL EDUCATION IN MARYLAND

A Progress Report

Fiscal Year 1983

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Maryland State Board for Community Colleges
sbcc
The Jeffrey Building • Annapolis, Md. 21401

THE IMPROVEMENT
OF OCCUPATIONAL EDUCATION
IN MARYLAND

A Progress Report

Fiscal Year 1983

DIRECTED BY:	Maryland State Board for Community Colleges
FUNDING GRANTED BY:	Division of Vocational-Technical Education Maryland State Department of Education
PROJECT DIRECTOR:	James D. Tschechtelin

December 1983

Annapolis, Maryland 21401

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Resolution

ESTABLISHMENT OF JOINT COORDINATING COMMITTEE
FOR OCCUPATIONAL EDUCATION PROGRAMS
MARYLAND STATE BOARD OF EDUCATION -
MARYLAND STATE BOARD FOR COMMUNITY COLLEGES

WHEREAS, The Maryland State Board for Community Colleges and the Maryland State Board of Education, in order to improve, expand, and coordinate their individual and joint efforts in the development, achievement, and support of high-quality occupational programs and services in post-secondary education for the citizens of Maryland; and

WHEREAS, A joint commitment of these two agencies to regular and systematic cooperation and coordination will assure the achievement of certain key objectives;

NOW, THEREFORE, BE IT RESOLVED That the State Board for Community Colleges and the Maryland State Board of Education will link efforts to achieve the following objectives:

1. Coordinate staff efforts through active dialogue and information-sharing concerning curriculum, facilities, personnel development, fiscal matters, and appropriate technical assistance in the occupational area;

2. Coordinate appropriate interrelated informational components within information systems;

3. Systematic sharing of relevant communication pertaining to specific occupational projects undertaken by community colleges;

4. Jointly develop, publish, and disseminate informational program materials and brochures highlighting occupational programs in Maryland community colleges;

5. Establish a joint coordinating committee for occupational education to foster interagency planning on annual and long-range master planning.

Approved:
State Board of Education, April 28, 1976
State Board for Community Colleges, May 13, 1976

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PROJECT SUMMARY

PROJECT TITLE

Management Information System and Program Evaluation, Activity No. 4.2.7

PROBLEM

A valid and reliable student data base is needed for planning, decision making, and Vocational Education Data System (VEDS) reporting. A systematic and objective procedure is needed to evaluate the quality of occupational programs in Maryland community colleges.

OBJECTIVE NO. 1

To conduct the following statewide projects, including the preparation of computer files and publication of a report for each study:

Credit enrollment
Degree recipients
Graduate follow-up
Leaver (entrant) follow-up
Employer follow-up
Discipline cost analysis
Continuing education data system
Program Inventory

PROCEDURES AND RESULTS

Credit Enrollment. Opening Fall enrollment is reported using a system of computer tapes from the colleges. In addition to demographic data about each student, the student's program of study and credit hours carried are reported. All seventeen community colleges submitted tapes or coding forms in Fall 1982.

Certificates and Degrees Awarded. The number of students who complete programs during the fiscal year are reported by college by program. Trends in the mix of occupational and transfer degrees are analyzed. Colleges submit the degree data on computer tapes or coding forms with one record per graduate. A technical memo on degree trends was produced and a report on characteristics of community college graduates was presented to the State Board for Community Colleges Bulletin.

Graduate Follow-Up. The statewide graduate follow-up study surveys persons about nine months after program completion. The study is a joint project of the community colleges and the State Board for Community Colleges and uses a standard questionnaire mailed in odd numbered years. A report of the 1980 graduates and their employers' perception of their preparation for work was published in FY 1983, Career Development and Job Performance, Follow-Up of Maryland Community College Graduates and Their Employers.

In FY 1983, 7,500 graduates from 1982 were surveyed and an adjusted response rate of 61 percent was achieved. Each college has received a printout of its data, a statewide aggregation, and an aggregation of the responses of graduates from similar peer colleges. Crosstabulation by program was provided to each college. A report of the 1982 graduates will be sent to the Division of Vocational-Technical Education as soon as it is completed.

Leaver Follow-Up. The statewide entrant follow-up study surveys persons four years after entry to the community college. The study uses a standard questionnaire mailed out in even numbered years.

Data from the 1978 entrants, surveyed in Spring 1982, were used in a report concerning transfer and occupational program students who transferred to four-year colleges. That report, The Maryland Experience: The Role of Community Colleges in Preparing Students for Transfer, was published in FY 1983. A second report, Four Years Later: Follow-Up of 1978 Entrants, relating to that survey has been completed and will be printed in September 1983.

Employer Follow-Up. The statewide employer follow-up study surveys the employers of graduates who (1) completed an occupational program, (2) are employed full-time, (3) are in work related to their education, and (4) gave permission to contact their employer. The study is a joint project of the community colleges and the State Board for Community Colleges and uses a standard questionnaire mailed out in odd numbered years. Specific questions required by the VEDS are included in the survey. In FY 1981, 716 employers were surveyed and a response rate of 61 percent was achieved. Each college received a printout of its data and a statewide aggregation. Crosstabulations by program were provided in both cases. A statewide report utilizing the data from surveys of the employers of 1978 and 1980 graduates was published in FY 1983, Career Development and Job Performance: Follow-Up of Maryland Community College Graduates and Their Employers.

In FY 1983, 1,312 employers of the 1982 community college graduates were surveyed and a response rate of 57 percent was achieved. Each college received a printout of its data and the statewide results. A report utilizing the data from this employer survey and comparing this data with previous surveys is being prepared and will be sent to the Division of Vocational-Technical Education.

Discipline Cost Analysis. Costs and full-time equivalent students are reported for each discipline at each college. The data enable an analysis of trends in costs per FTE student in occupational disciplines. Colleges are provided with trend reports for their college, similar size colleges, and statewide. The Discipline Cost Analysis Manual was revised and the procedures for preparing the report were clarified. In FY 1983, a State Board for Community Colleges workshop was held to review these procedures and examine how this report and data can best be used at the colleges.

Continuing Education Data System. Enrollments and contact hours are reported to the State Board for Community Colleges for each noncredit course. Reports are generated showing the number of registrants and full-time equivalent students in specific types of occupational courses at each college. Copies of these reports are sent to the colleges and to the DVTE at the end of each year. Summary reports of

enrollments in noncredit courses are included in the annual SBCC publication, Selected Financial and Enrollment Statistics.

In FY 1983, the State Board for Community Colleges implemented a system for the tape submission to the SBCC of enrollment, course, and student demographic data in continuing education. This tape system provided software to each college that generates a standard format file and produces management and aid transmittal reports at each college. This software was used by all colleges in FY 1983 to produce State reports and to produce an end-of-year data tape for the SBCC. Data from this system are currently being processed and a report on FY 1983 continuing education enrollments will be sent to the DVTE.

Program Inventory. The SBCC Program Inventory was updated in 1983 to reflect programs that were added, discontinued, or made inactive. The Program Inventory is the backbone of the SBCC Information System and is critical to the Program Data Monitoring System and to student follow-up studies. A crosswalk was used for the new federal Classification of Instructional Programs (CIP). Colleges will continue to report their enrollment, degrees, discipline cost analysis, employee data, and follow-up surveys using the present six-digit State Board for Community Colleges and State Board for Higher Education subject codes. The SBCC and SBHE will translate these program codes to the CIP codes for any federal report which requires CIP codes.

Common Data Elements. In a statewide system of locally governed community colleges, each institution is free to develop its own data processing system. In order to insure that data from each institution are comparable and to promote more efficient development of data systems, the Association of Data Processing Directors of Maryland Community Colleges has produced the Course Master Data Elements and Student Data Element Dictionary. This Data Element Dictionary has been continuously updated by the data processing directors and maintained by the State Board for Community Colleges on the SBCC computer file. During FY 1983, it was reviewed by the community colleges institutional research directors and a two-day workshop was held to develop a new section dealing with continuing education enrollment and courses. During FY 1983, sections on continuing education enrollments, courses, and financial data were produced and distributed to all colleges.

OBJECTIVES NO. 2 AND NO. 3

To run the State Board for Community Colleges Program Data Monitoring System and review each of the 396 (98 transfer and 298 occupational) programs by June 15, 1983.

To publish an in-depth evaluation of forty-eight community college programs by March 15, 1983 and a statewide evaluation of media/communications programs, conducted because of a concern about poor job placement.

PROCEDURES AND RESULTS

Program Data Monitoring System. The 1983 printout of the Program Data Monitoring (PDM) System was sent to college occupational deans and institutional researchers for confirmation of the data. Upon receipt of the corrections, a final printout was made and a copy was sent to the DVTE with one page per program at each

college. In each of the past four years, the PDM System has been enhanced. This year data were added about 1982 enrollment and awards, FY 1982 discipline costs, and 1982 graduates. The 1982 Higher Education Cost Index was included in the Discipline Cost Analysis display of cost trends and the results for the 1982 graduates were added to the display of follow-up surveys. In addition, changes in the report were added that display an enrollment to graduation ratio, manpower projections for the State and region, and enhancements of the follow-up reports.

Program Evaluation. The system for program evaluation is described at length in the Instructional Program Manual. Briefly, the SBCC reviews each program at each college every April using the Program Data Monitoring System. The PDM System displays trends in enrollment awards, employment in field of training, student satisfaction, discipline costs, and job openings. Programs that appear to need a qualitative evaluation are identified and a letter asking specific questions is sent to the college presidents. The colleges prepare written responses and the responses are compiled into a Program Evaluation Report reviewed by the State Board for Community Colleges in January.

The 122-page Program Evaluation Report was published in March 1983 and sent to the DVTE. After the fifth full cycle of program evaluations, 230 programs have been evaluated. Many programs have been improved through changes in curriculum, staffing, or recruitment. In addition, fifty programs have been discontinued and seventeen have been made inactive. Table 1 shows the number of programs evaluated by year and by occupational program area.

In June 1983, forty-eight programs were identified for a qualitative evaluation in the sixth cycle of the Program Evaluation System. Table 2 gives the names of the programs identified for a college evaluation, along with the primary reason(s) for the evaluation request.

Table I

PROGRAM EVALUATION SYSTEM

	Number of Active Programs		Programs Designated for Evaluation										Programs Discontinued 1978-1982		Programs Inactive 1978-1982	
			1978		1979		1980		1981		1982					
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
TRANSFER	84	21	-	-	1	2	16	33	3	6	14	29	-	-	-	-
OCCUPATIONAL																
Business and Commerce	101	26	10	27	10	22	12	25	15	29	12	25	9	18	2	12
Data Processing	23	6	2	5	5	11	1	2	1	2	-	-	-	-	-	-
Health Services	66	17	8	22	6	13	1	2	11	21	7	15	9	18	3	18
Mechanical and Engineering	60	15	11	30	14	31	8	17	9	17	9	19	13	26	8	47
Natural Science	14	4	2	5	4	9	3	6	3	6	2	4	6	12	2	12
Public Service	48	12	4	11	5	11	7	15	10	19	4	8	13	26	2	12
TOTAL	396	100	37	100	45	100	48	100	52	100	48	100	50	100	17	100

Table 2

PROGRAMS DESIGNATED FOR QUALITATIVE EVALUATION
MARYLAND COMMUNITY COLLEGES
FISCAL YEAR 1983

College: Program	Issue	HEGIS No.
Allegany:		
Nursing, Practical	Low placement	5209-01
Automotive Technology	Inadaquate follow-up Evaluated in 1980	5306-01
Criminal Justice	Inadequate follow-up Statewide evaluation	5505-01
Anne Arundel:		
Teacher Education (Transfer)	High enrollment-to-awards ratio High credit loss upon transfer Low grades upon transfer Low goal achievement Evaluated in 1980	4960-01
Human Services	Low placement Evaluated in 1979	5216-01
Law Enforcement	Statewide evaluation Increasing cost	5505-01
Baltimore:		
Engineering (Transfer)	Inadequate follow-up	4940-01
Commercial Art	Inadequate follow-up	5012-05
Urban Development Assistant	Low enrollment Inadequate follow-up	5501-01
Government Service Assistant	Declining enrollment Inadequate follow-up	5501-03
Catonsville:		
Engineering (Transfer)	Inadequate follow-up	4940-01
Traffic and Transportation Management	Declining awards Inadequate follow-up	5011-02
Criminal Justice	Low goal achievement Statewide evaluation	5505-01
Fire Protection Technology	Declining enrollment Inadequate follow-up	5507-01

College: Program	Issue	HEGIS No.
Cecil:		
General Studies (Transfer)	Declining enrollment Loss of credits upon transfer	4950-01
Sanitary Technology	Low enrollment No awards	5408-01
Charles:		
Engineering (Transfer)	Inadequate follow-up	4940-01
Horticulture	Low enrollment Evaluated in 1980	5402-01
Chesapeake:		
Medical Laboratory Technology	Inadequate follow-up	5205-01
Law Enforcement	Inadequate follow-up Statewide evaluation	5505-01
Dundalk:		
Secretarial Science	Low awards Declining enrollment Inadequate follow-up	5005-01
Legal Assistant	Inadequate follow-up Evaluated in 1978	5599-01
Essex:		
Business Admininstration (Transfer)	Declining awards Low goal achievement	4970-01
Travel and Tourism	Inadequate follow-up	5099-02
Health Services Management	Inadequate follow-up	5218-01
Criminal Justice	Declining enrollment Low placement Low satisfaction with employee preparation Statewide evaluation	5505-01
Frederick:		
Arts and Sciences (Transfer)	Inadequate follow-up High enrollment-to-awards ratio	4910-01
Business Management	Inadequate follow-up High enrollment-to-awards ratio	5001-01

College: Program	Issue	HEGIS No.
Garrett:		
Secretarial Science	Declining enrollment Inadequate follow-up	5005-01
Maintenance Technology	Low enrollment Inadequate follow-up	5312-02
Hagerstown:		
Electrical Engineering Technology	Inadequate follow-up	5311-01
Mechanical Engineering Technology	Inadequate follow-up Evaluated in 1979	5315-01
Police Services	Low goal achievement Statewide evaluation Evaluated in 1978	5505-01
Harford:		
Retail Management	Inadequate follow-up Increasing costs	5004-08
Automotive Engineering Technology	Inadequate follow-up	5306-01
Criminal Justice	Declining enrollment Statewide enrollment	5505-01
Howard:		
Retailing	Declining enrollment Inadequate follow-up Evaluated in 1980	5004-08
Electronics Technology	Inadequate follow-up Evaluated in 1979	5310-01
Montgomery:		
Printing Technology	Low placement	5009-01
Automotive Technology	Inadequate follow-up	5306-01
Early Childhood Education	Low placement	5503-03
Criminal Justice	Statewide evaluation Evaluated in 1980	5505-01

College: Program	Issue	HEGIS No.
Prince George's:		
Business Admininstration (Transfer)	Declining enrollment Low grades after transfer	4970-01
Marketing Management	Inadequate follow-up	5004-08
Medical Records Technology	Inadequate follow-up Increasing cost	5213-01
Criminal Justice	Declining enrollment Declining awards Statewide evaluation Evaluated in 1980	5505-01
Wor-Wic Tech:		
Hotel-Motel-Restaurant Management	Inadequate follow-up Increasing costs	5010-01
Law Enforcement	Inadequate follow-up Statewide evaluation	5505-01

USING INFORMATION TO SUPPORT INSTRUCTIONAL PROGRAM EVALUATION

Program evaluation in Maryland community colleges is part of an integrated system for program implementation and evaluation, with both pieces woven together by an extensive data base. The process for implementing and evaluating instructional programs in Maryland community colleges is diagrammed on the following page. New programs begin with local needs. Faculty members and administrators see educational needs among students and employers and respond with program ideas. By December, the college submits the titles for its proposed programs to the State Board for Community Colleges (SBCC) and the titles are printed in the State Plan for Community Colleges in Maryland. In June, the college submits Letters of Intent that describe the goals and nature of the proposed programs. The SBCC acts on the Letters of Intent at its July meeting, raising questions as necessary and making suggestions for program development. Often the questions arise from the Program Data Monitoring System described below. For example, a college could propose a new program in recreation technology; statewide data about employment of graduates of existing recreation programs may indicate that a new program would have great difficulty with job placement.

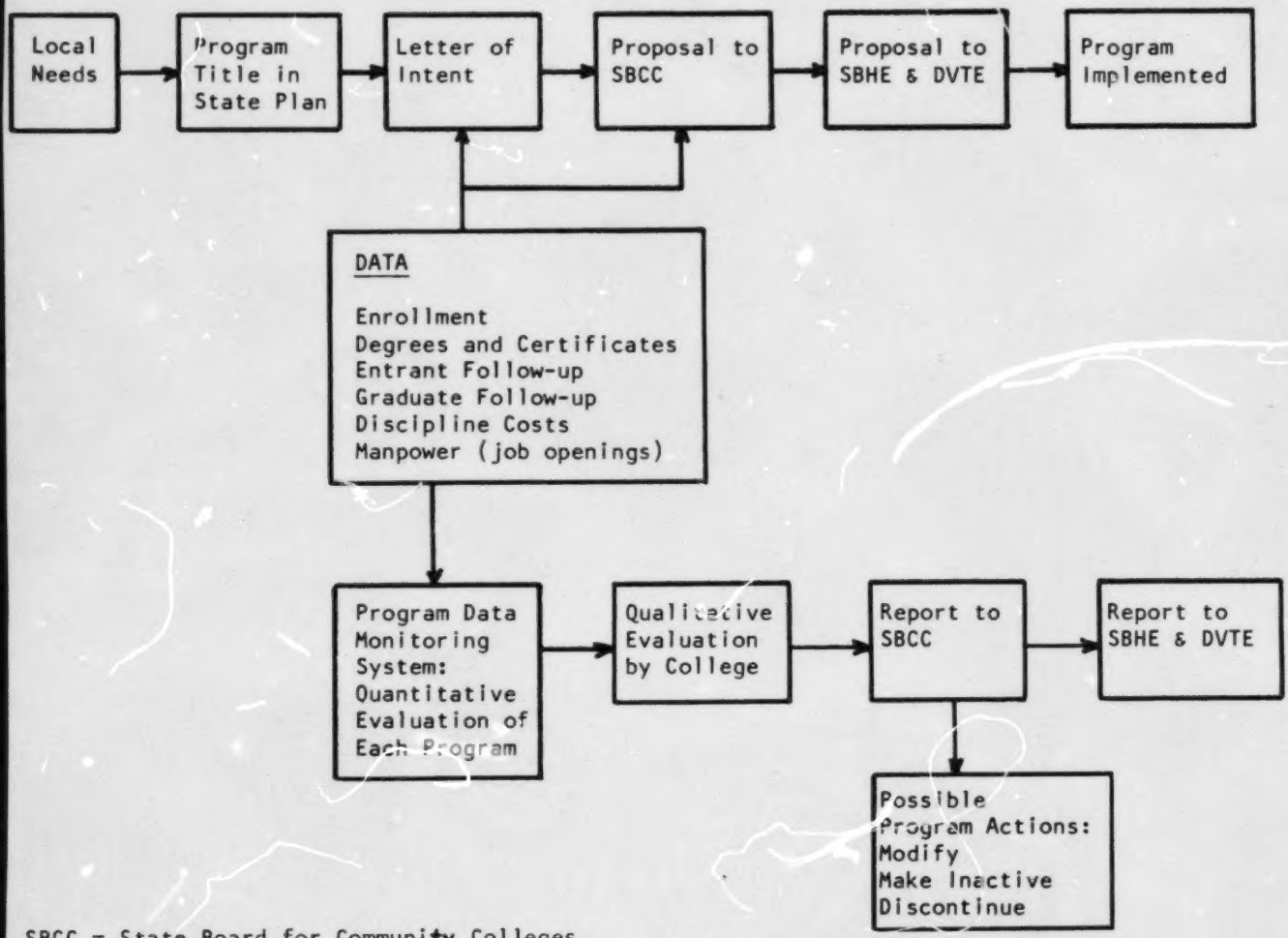
In November, the colleges submit full program proposals. The proposals are analyzed by the SBCC staff with an eye toward employment possibilities, student interest, and cost. Again, the Program Data Monitoring System is used to establish benchmarks for reasonable projections in the proposals. The SBCC acts on the program proposals at the December meeting. Following SBCC action, the programs are sent to the State Board for Higher Education (SBHE) for approval. The Division of Vocational-Technical Education (DVTE) of the Maryland State Board of Education also reviews the proposals for federal funding. Approved programs are generally implemented the following September, about fifteen months after the Letter of Intent was submitted.

Program evaluation is a two-step process in Maryland community colleges. The first step is a quantitative evaluation. Each April the SBCC staff evaluates each program at each college using the Program Data Monitoring System. The PDM System produces one computer page for each program and displays trends in enrollment, degrees, and discipline costs. Employment and transfer information from entrant and graduate follow-up is also shown. The printout is sent to the colleges for verification in May.

In June, the SBCC requests colleges to conduct a qualitative evaluation, the second step in the process. Typically, the local qualitative evaluation is done with a committee of faculty, academic administrators, and institutional research staff members. The committee draws on their experiences, conducts a deeper analysis of existing data, and seeks more information from students or employers. The qualitative evaluations are reviewed and compiled by the SBCC and distributed to the SBHE and DVTE. The most recent Program Evaluation Report was 122 pages in length and included the questions asked by the SBCC and the colleges' response to each question. Media/Communications Technology programs were evaluated at each college statewide during the last year, and the Program Evaluation Report contains a summary of the statewide evaluation. During the first five complete cycles of the evaluation system, 230 programs were evaluated. Many programs were improved through changes in their curriculum, staffing, recruiting, and retention. Fifty programs were discontinued, and seventeen were inactivated.

Maryland State Board for Community Colleges

PROGRAM IMPLEMENTATION AND EVALUATION



SBCC = State Board for Community Colleges
SBHE = State Board for Higher Education
DVTE = Division of Vocational-Technical Education
Maryland State Department of Education

GUIDE FOR USERS OF THE PROGRAM DATA MONITORING SYSTEM PRINTOUT

The State Board for Community Colleges Program Evaluation System was developed in cooperation with the community college presidents and approved by the Board in 1978. The system involves two steps: quantitative evaluation of each program each year by the SBCC, and qualitative evaluation of selected programs each year by the community colleges. The following information is given to assist in the interpretation of data on the Program Data Monitoring (PDM) printout, a display of enrollment, awards, follow-up, discipline cost, and manpower information.

Program Number and College Program Title. These items are taken from the current SBCC Program Inventory. Data are only shown on the PDM printout as related to programs and not according to program options. Data related to program options are included as part of the overall program. For example, a college may have a program in Electronics Technology, with an option in Digital Electronics. Data related to the Digital Electronics option are included in the data with the Electronics Technology.

Enrollment and Awards. Enrollment and awards data are obtained from Enrollment Information System (EIS) data tapes and from the Degree Data System tapes, respectively. The "FT ENR-TO-AWARD RATIO" is derived by taking one-half of the full-time enrollment in a given year and dividing that figure by the number of graduates two years later. For example, a program that had 100 full-time students in 1978 and twenty-five graduates in 1980 would have a ratio of 2:1. All student and discipline cost information on the PDM printout is submitted by the colleges, and changes are not made in that data without consulting the college.

Similar Programs. Enrollment and award data from the most recent year are shown for each college having the same program, in order to show the scope of the programs at adjacent colleges and statewide.

Student Follow-Up Studies. Student follow-up studies are conducted jointly by the college and the SBCC, with the college responsible for mailing the questionnaires to students. The column 1978 Graduates refers to a study of all graduates of FY 1978, surveyed in Spring 1979. The statewide response rate among graduates actually receiving the questionnaire was 63 percent. The column 1980 Graduates refers to a similar survey conducted in 1981, with a response rate of 65 percent. All percentages in the follow-up section are simple percentages of the number of respondents, except the data "Among Full-time Employees" where blanks have been excluded from the denominator to arrive at the percentage. Graduate follow-up data are generally not interpreted when there are less than ten respondents. However, since the questionnaires were identical in both follow-up studies, the results from the two studies can be combined, if necessary, to get a more reliable picture of the graduates.

Annual Openings, 1976-1982. The data were developed by the Maryland Department of Human Resources, Research and Analysis Division, and published as the Occupational--Industrial Outlook-1982, March 1980. A similar publication was used for the Baltimore area data, which includes Baltimore City and the following counties: Harford, Baltimore, Carroll, Howard, and Anne Arundel. The methodology for projecting job openings involves using data from the Occupational Employment Statistics (OES) Program. Occupational information is based upon employer responses solicited every three years. The projections include openings due to growth and labor force separations.

Discipline Credit Hour Cost. Data are shown as reported in the SBCC Discipline Cost Analysis for the fiscal years shown. Basically, the discipline cost analysis accounts for all expenditures at the colleges (including federal) and attributes them to direct costs, additional direct costs, and indirect costs. Direct costs are a function of the faculty compensation and class size. Additional direct costs include supplies and materials related to the teaching of that discipline, such as laboratory supplies. Indirect costs include general administration costs, including the library, student services, and utilities. Indirect costs are applied to all courses in proportion to the number of full-time equivalent students in the course. The discipline costs for all general education disciplines are combined as shown on the page for General Studies 4950-01. At the present, discipline costs are only presented at the four-digit HEGIS program level. That is, discipline costs for 5004-01 are the same as those shown for 5004-06. The condition has been corrected for FY 1981 data, but the PDM display is unchanged until trend data at the six-digit level is meaningful.

Procedure for Program Evaluation. Every April, the updated PDM printout is distributed to academic deans, occupational deans, and institutional research directors to verify the data. The SBCC staff then identifies several programs at each college that appear to be in some difficulty and in need of a qualitative evaluation. In general, selection is based upon enrollment, awards, and job placement, in that order. Discipline cost information is used in the context of the overall discipline cost at the college and the average cost of the discipline at other colleges.

The selection of programs for a qualitative evaluation is assisted by "flags" shown in the lower right corner of the PDM printout. The flags represent criteria checks on certain data, such as, "Enrollment decreased at least 20 percent and by ten students last year." The flags were set with the help of community college academic deans, occupational deans, and institutional research directors. The flags are used by the SBCC staff to assist in selecting programs for a qualitative evaluation but are not the sole criteria for requesting a qualitative evaluation by the college.

The SBCC staff constructs questions to be addressed in the qualitative evaluation. Upon approval by the State Board for Community Colleges in June, the questions are sent to each college president. Colleges conduct the qualitative evaluations, respond to the questions raised, and submit a report to the SBCC. The SBCC publishes a report of all questions and responses. The report is distributed to the community colleges, to the State Board for Higher Education, to the State Department of Education, Division of Vocational-Technical Education, and to the State Advisory Council for Vocational-Technical Education.

03/27/83 SOCC PROGRAM DATA MONITORING SYSTEM

COLLEGE: HARFORD COMMUNITY COLLEGE

PROGRAM NUMBER: 5208 01
HEGIS PROGRAM CATEGORY: NURSING, RN

CERTIFICATE: NOT OFFERED
ASSOCIATE: NURSING

COLLEGE PROGRAM TITLE	YEAR IMPLEMENTED	CURRENT STATUS	USOE NUMBER
NURSING	PRE 1974	ACTIVE	7030100

ENROLLMENT:	1977	1978	1979	1980	1981	1982
CERTIFICATE LEVEL						
FULL-TIME	-	-	-	-	-	-
PART-TIME	-	-	-	-	-	-
ASSOCIATE LEVEL						
FULL-TIME	96	113	176	198	145	130
PART-TIME	198	271	244	330	330	397
TOTAL HEAD-COUNT	294	384	420	528	475	527
AWARDS:						
CERTIFICATES	-	-	-	-	-	-
ASSOCIATE DEGREES	46	85	72	72	98	88
TOTAL ALL AWARDS	46	85	72	72	98	88
PERCENT FULL-TIME	33%	29%	42%	38%	31%	25%
FT ENR-TO-AWARD RATIO			1:1	1:1	1:1	1:1
STATEWIDE FULL-TIME ENROLLMENT-TO-AWARD RATIO						1:1
(NUMERATOR = 1/2 F-T ENR 2 YRS EARLIER, SAME YR USED FOR STATE)						

STUDENT FOLLOW-UP STUDIES:

	1978 GRADUATES		1980 GRADUATES	
	COLLEGE	STATE	COLLEGE	STATE
NUMBER OF RESPONDENTS	47	425	28	388
RESPONSE RATE	55%		39%	
FULL-TIME JOB, DIRECTLY RELATED	70%	67%	89%	61%
FULL-TIME JOB, SOMEWHAT RELATED	2%	3%	7%	3%
FULL-TIME JOB, NOT RELATED	2%	1%	0%	1%
PART-TIME JOB	19%	21%	32%	27%
TRANSFERRED, NOT EMPLOYED	2%	2%	4%	1%
SEEKING WORK, NOT EMPLOYED	0%	2%	4%	2%
MILITARY, HOME RESPON, OTHER	4%	5%	4%	5%
TOTAL	100%	100%	100%	100%
TRANSFERRED, REGARDLESS OF EMPL	6%	9%	32%	12%
ACHIEVED PERSONAL GOAL	94%	90%	93%	96%
SATISFIED WITH INSTR IN PROGRAM	96%	84%	100%	94%
AMONG FULL TIME EMPLOYEES				
MEDIAN ANNUAL SALARY	-	-	$14,029	$14,326
NO. REPORTING SALARY DATA	-	-	15	217
BEGAN NEW JOB AFTER COLLEGE	91%	89%	94%	85%
SATISFIED WITH EMPLMNT PREP	97%	83%	100%	93%

ANNUAL JOB OPENINGS, 1976-1982:

	BALT AREA	STATEWIDE
NURSES, PROFESSIONAL	975	1,438

JOB OPENINGS MAY ALSO BE AVAILABLE IN OTHER OCCUPATIONS. SEE DHR MANPOWER PROJECTIONS. SOME STUDENTS ARE ALREADY EMPLOYED WHILE ATTENDING THE COMMUNITY COLLEGE. THEREFORE, OPENINGS MAY NOT BE NEEDED FOR ALL GRADUATES. OPENINGS ARE FOR MARYLAND ONLY.

SIMILAR PROGRAMS IN MARYLAND COMMUNITY COLLEGES:

COLLEGE	ENROLLMENT FALL, 1982 FT	PT	TOTAL	AWARDS 81-82 CERT	AA	SCH YR TOTAL
ALLEGANY	234	167	401	-	52	52
ANNE ARUNDEL	96	479	575	-	68	68
BALTIMORE	106	94	200	-	58	29
CATONSVILLE	241	803	1044	-	97	97
CECIL	23	74	97	-	-	-
CHARLES	40	23	63	-	25	25
ESSEX	172	652	824	-	79	79
FREDERICK	73	114	187	-	31	31
HAGERSTOWN	23	50	73	-	27	27
HARFORD	130	397	527	-	88	88
HOWARD	66	303	369	-	60	60
MONTGOMERY	50	144	194	-	79	79
PRINCE GEORGE'S	260	563	823	-	90	90
WOR-WIC TECH	17	30	47	-	27	27
TOTAL ALL COLLEGES	1531	3893	5424	-	752	752

DISCIPLINE CREDIT HOUR COST IN NURSING, RN

	1978	1979	1980	1981	78-81 CHG
HIGHER ED PRICE INDEX	156	169	185	203	+30%
STATEWIDE COST:					
ALL DISCIPLINES	$71	$80	$82	$83	+17%
THIS DISCIPLINE	$134	$127	$138	$133	-1%
COLLEGE COST:					
ALL DISCIPLINES	$74	$73	$82	$84	+14%
THIS DISCIPLINE	$174	$135	$157	$87	-50%

THESE COSTS ARE DISCIPLINE COSTS, NOT PROGRAM COSTS; A SINGLE DISCIPLINE MAY SUPPORT SEVERAL PROGRAMS.

PDM QUANTITATIVE CRITERIA CHECKS INDICATE:

AWARDS DECREASED AT LEAST 10% AND BY 10 STUDENTS LAST YEAR.
EMPLOYMENT FULL-TIME IN RELATED JOB 10% LOWER THAN STATE.

SOURCES: HEGIS REPORTS, FOLLOW-UP STUDIES, DEPT OF HUMAN RESOURCES "OCCUPATIONAL-INDUSTRIAL OUTLOOK" AND DISCIPLINE COST ANALYSIS. DATA IS SUBJECT TO CONFIRMATION BY THE COLLEGE.

EXAMPLE OF A USE OF THE PROGRAM DATA MONITORING SYSTEM

(This is an example of a use of the Program Data Monitoring System to assist in the analysis of programs. In this case, the PDM System is being asked to find all of the high cost, low enrollment programs implemented between 1965 and 1980. Programs that have been discontinued will not be considered.)

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READY
THIS IS THE PROGRAM DATA MONITORING SYSTEM DEVELOPED BY
     THE MARYLAND STATE BOARD FOR COMMUNITY COLLEGES.
DO YOU WANT THE FLAG SECTION TO APPEAR ON THE PRINTOUT?
YES
THE TOTAL REPORT IS ABOUT 400 PAGES, YOU CAN EITHER PRINT IT ALL OR BE SELECTIVE.
DO YOU WANT TO PRINT  THE  W-H-O-L-E  T-H-I-N-G ?
NO
DO YOU WANT TO SELECT PROGRAMS BASED ON COLLEGE CODES?
NO
DO YOU WANT TO SELECT PROGRAMS BASED ON PROGRAM NUMBER?
YES
ENTER LOWEST PROGRAM NUMBER DESIRED.
5001
ENTER HIGHEST PROGRAM NUMBER DESIRED.
5599
DO YOU WANT TO SELECT PROGRAMS BASED ON ENROLLMENT SIZE?
YES
ENTER LOWEST TOTAL ENROLLMENT DESIRED
0
ENTER HIGHEST TOTAL ENROLLMENT DESIRED
30
DO YOU WANT TO SELECT PROGRAMS BASED ON NUMBER OF AWARDS?
NO
DO YOU WANT TO SELECT PROGRAMS BASED ON YEAR IMPLEMENTED?
YES
ENTER EARLIEST YEAR DESIRED. EX "74".
65
ENTER LAST YEAR DESIRED.  EX "76".
80
DO YOU WANT TO SELECT PROGRAMS BASED ON EVAL DATE?
NO
DO YOU WANT TO SELECT PROGRAMS BASED ON DISCIPLINE COST?
YES
ENTER LOWEST DISCIPLINE COST DESIRED. EX "62".
91
ENTER HIGHEST DISCIPLINE COST DESIRED. EX "200"
500
DO YOU WANT TO SELECT ONLY ACTIVE PROGRAMS?
YES
DO YOU WANT TO SELECT ONLY PROGRAMS WITH FLAGS?
NO
DO YOU WANT TO SELECT PROGRAMS BASED ON INDIVIDUAL FLAGS?
NO
WILL THIS REPORT BE PRINTED ONLY ON THE TERMINAL?
NO
```

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PLEASE WAIT A MINUTE AND YOUR REPORT WILL BE READY.
200 RECORDS HAVE BEEN READ.
00479 PROGRAMS WERE READ,
00028 PROGRAMS WERE SELECTED ACCORDING TO YOUR CRITERIA,
YOUR REPORT IS READY ON TEMPORARY FILE PDM-REP.
TYPE:  "@ED PDM-REP."
THEN TYPE:  "P,*"   AND YOUR REPORT WILL PRINT.
```

(In this instance 28 programs met the criteria established; the cost for the computer run was $3.93.)

ERIC® CLEARINGHOUSE FOR
JUNIOR COLLEGES
UNIVERSITY OF CALIFORNIA

APR 6 1984

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